J 6

```
NNN         NNN  MMM         MMM  LLL
NNN         NNN  MMM         MMM  LLL
NNN         NNN  MMM         MMM  LLL
NNN         NNN  MMMMMM   MMMMMM  LLL
NNN         NNN  MMMMMM   MMMMMM  LLL
NNN         NNN  MMMMMM   MMMMMM  LLL
NNNNNN      NNN  MMM   MMM   MMM  LLL
NNNNNN      NNN  MMM   MMM   MMM  LLL
NNNNNN      NNN  MMM   MMM   MMM  LLL
NNN   NNN   NNN  MMM         MMM  LLL
NNN   NNN   NNN  MMM         MMM  LLL
NNN   NNN   NNN  MMM         MMM  LLL
NNN      NNNNNN  MMM         MMM  LLL
NNN      NNNNNN  MMM         MMM  LLL
NNN      NNNNNN  MMM         MMM  LLL
NNN         NNN  MMM         MMM  LLL
NNN         NNN  MMM         MMM  LLL
NNN         NNN  MMM         MMM  LLL
NNN         NNN  MMM         MMM  LLLLLLLLLLLLLLL
NNN         NNN  MMM         MMM  LLLLLLLLLLLLLLL
NNN         NNN  MMM         MMM  LLLLLLLLLLLLLLL
```

_$

Ps

NP

NP

$G

$O

NP

PA

_L

```
**FILE**ID**NMLPMANIP                              N 11

NN      NN  MM      MM  LL          PPPPPPPP    MM      MM    AAAAAA    NN      NN    IIIIII    PPPPPPPP
NN      NN  MM      MM  LL          PPPPPPPP    MM      MM    AAAAAA    NN      NN    IIIIII    PPPPPPPP
NN      NN  MMMM  MMMM  LL          PP      PP  MMMM  MMMM  AA      AA  NN      NN      II      PP      PP
NN      NN  MMMM  MMMM  LL          PP      PP  MMMM  MMMM  AA      AA  NN      NN      II      PP      PP
NNNN    NN  MM  MM  MM  LL          PP      PP  MM  MM  MM  AA      AA  NNNN    NN      II      PP      PP
NNNN    NN  MM  MM  MM  LL          PP      PP  MM  MM  MM  AA      AA  NNNN    NN      II      PP      PP
NN  NN  NN  MM      MM  LL          PPPPPPPP    MM      MM  AA      AA  NN  NN  NN      II      PPPPPPPP
NN  NN  NN  MM      MM  LL          PPPPPPPP    MM      MM  AA      AA  NN  NN  NN      II      PPPPPPPP
NN    NNNN  MM      MM  LL          PP          MM      MM  AAAAAAAAAA  NN    NNNN      II      PP
NN    NNNN  MM      MM  LL          PP          MM      MM  AAAAAAAAAA  NN    NNNN      II      PP
NN      NN  MM      MM  LL          PP          MM      MM  AA      AA  NN      NN      II      PP              ....
NN      NN  MM      MM  LL          PP          MM      MM  AA      AA  NN      NN      II      PP              ....
NN      NN  MM      MM  LLLLLLLLLL  PP          MM      MM  AA      AA  NN      NN    IIIIII    PP              ....
NN      NN  MM      MM  LLLLLLLLLL  PP          MM      MM  AA      AA  NN      NN    IIIIII    PP              ....

LL            IIIIII      SSSSSSSS
LL            IIIIII      SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II        SSSSSS
LL              II        SSSSSS
LL              II              SS
LL              II              SS
LL              II              SS
LL              II              SS
LLLLLLLLLL    IIIIII    SSSSSSSS
LLLLLLLLLL    IIIIII    SSSSSSSS
```

NM
VO

```
0001 0 %TITLE 'NML internal parameter manipulation module'
0002 0 MODULE NML$PMANIP (
0003 0                  LANGUAGE (BLISS32),
0004 0                  ADDRESSING_MODE (NONEXTERNAL=GENERAL),
0005 0                  ADDRESSING_MODE (EXTERNAL=GENERAL),
0006 0                  IDENT = 'V04-000'
0007 0                  ) =
0008 1 BEGIN
0009 1 !
0010 1 !****************************************************************************
0011 1 !*                                                                          *
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0028 1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                 *
0029 1 !*                                                                          *
0030 1 !*                                                                          *
0031 1 !****************************************************************************
0032 1 !
0033 1 !
0034 1 ! ABSTRACT:
0035 1 !
0036 1 !       This module contains routines to handle internal parameter
0037 1 !       manipulation functions.
0038 1 !
0039 1 ! ENVIRONMENT:  VAX/VMS Operating System
0040 1 !
0041 1 ! AUTHOR:  Distributed Systems Software Engineering
0042 1 !
0043 1 ! CREATION DATE:  23-JAN-1980
0044 1 !
0045 1 ! MODIFIED BY:
0046 1 !
0047 1 !       V03-003 MKP0003         Kathy Perko             4-Aug-1983
0048 1 !               Make permanent database routines transparent to the length
0049 1 !               of the ISAM keys at the beginning of the records.
0050 1 !
0051 1 !       V03-002 MKP0002         Kathy Perko             22-June-1982
0052 1 !               Add support for specifying "active X25-Protocol network".
0053 1 !
0054 1 !       V03-001 MKP0001         Kathy Perko             28-April-1982
0055 1 !               More modifications for NETACP control QIO.  Add the
0056 1 !               second search key to NFB.  Also, delete the start key.
0057 1 !
```

```
;    58          0058  1 !        V02-001 LMK0001          Len Kawell               21-Jul-1981
;    59          0059  1 !                Modifications for new NETACP control QIO.
;    60          0060  1 !--
;    61          0061  1
;    63        0062  1 %SBTTL 'Declarations'
;    64        0063  1
;    65        0064  1 !
;    66        0065  1 ! TABLE OF CONTENTS:
;    67        0066  1 !
;    68        0067  1
;    69        0068  1 FORWARD ROUTINE
;    70        0069  1     NML$SAVEPARAM,
;    71        0070  1     NML$CHKPRMVAL,
;    72        0071  1     NML$BLDSETQBF          : NOVALUE,
;    73        0072  1     NML$DEL_FIELDS,
;    74        0073  1     NML$ADD_FIELDS,
;    75        0074  1     NML$READPARLIST,
;    76        0075  1     NML$SHOWPARLIST,
;    77        0076  1     NML$BLDALLDES;
;    78        0077  1
;    79        0078  1 !
;    80        0079  1 ! INCLUDE FILES:
;    81        0080  1 !
;    82        0081  1
;    83        0082  1 LIBRARY 'LIB$:NMLLIB.L32';
;    84        0083  1 LIBRARY 'SHRLIB$:NMALIBRY.L32';
;    85        0084  1 LIBRARY 'SHRLIB$:NET.L32';
;    86        0085  1 LIBRARY 'SYS$LIBRARY:STARLET.L32';
;    87        0086  1
;    88        0087  1 !
;    89        0088  1 ! EXTERNAL REFERENCES:
;    90        0089  1 !
;    91        0090  1
;    92        0091  1 $NML_EXTDEF;
;    93        0092  1
;    94        0093  1 EXTERNAL LITERAL
;    95        0094  1     NML$_DSCBFOVF,
;    96        0095  1     NML$_QIOBFOVF,
;    97        0096  1     NML$_RECBFOVF;
;    98        0097  1
;    99        0098  1 EXTERNAL ROUTINE
;   100        0099  1     NMA$SEARCHFLD,
;   101        0100  1     NML$BLD_REPLY,
;   102        0101  1     NML$BLDP2,
;   103        0102  1     NML$ERROR_1,
;   104        0103  1     NML$ERROR_2;
;   105        0104  1
;  107        0105  1 %SBTTL 'NML$SAVEPARAM  Check parameter value'
;  108        0106  1 GLOBAL ROUTINE NML$SAVEPARAM (CPT_INDEX, LENGTH, POINTER) =
;  109        0107  1
;  110        0108  1 !++
;  111        0109  1 ! FUNCTIONAL DESCRIPTION:
;  112        0110  1 !
;  113        0111  1 !       This routine saves a parameter as a descriptor in the parameter
;  114        0112  1 !       descriptor block.
;  115        0113  1 !
;  116        0114  1 ! FORMAL PARAMETERS:
;  117        0115  1 !
;  118        0116  1 !       CPT_INDEX
;  119        0117  1 !       LENGTH
;  120        0118  1 !       POINTER
;  121        0119  1 !
;  122        0120  1 ! IMPLICIT INPUTS:
;  123        0121  1 !
;  124        0122  1 !       NML$AB_PRMSEM is the parameter semantic table.
;  125        0123  1 !       NML$AW_PRM_DES is the parameter descriptor buffer.
;  126        0124  1 !       NML$GW_PRMDESCNT contains the current number of descriptor entries.
;  127        0125  1 !
;  128        0126  1 ! IMPLICIT OUTPUTS:
;  129        0127  1 !
;  130        0128  1 !       If the parameter is valid then a descriptor entry will be created for
;  131        0129  1 !       it in NML$AW_PRM_DES and NML$GW_PRMDESCNT will be incremented.
;  132        0130  1 !
;  133        0131  1 ! ROUTINE VALUE:
;  134        0132  1 ! COMPLETION CODES:
;  135        0133  1 !
;  136        0134  1 !       Always returns NML$_STS_SUC.
;  137        0135  1 !
;  138        0136  1 ! SIDE EFFECTS:
;  139        0137  1 !
;  140        0138  1 !  If the parameter descriptor buffer is full then a software error
;  141        0139  1 ! (NMA$C_STS_MPR) is signalled with optional text to identify the error.
;  142        0140  1 !
;  143        0141  1 !--
;  144        0142  1
;  145        0143  2     BEGIN
;  146        0144  2
;  147        0145  2     BIND
;  148        0146  2         CPT_LIST      = NML$AB_CPTABLE [.CPT_INDEX, 0,0,0,0]
;  149        0147  2                         : BBLOCK [CPT$K_ENTRYLEN],
;  150        0148  2         SEMANTIC_LIST = NML$AB_PRMSEM [.CPT_LIST [CPT$W_PSTINDEX], 0,0,0,0]
;  151        0149  2                         : BBLOCK [PST$K_ENTRYLEN];
;  152        0150  2
;  153        0151  2     LOCAL
;  154        0152  2         VEC_INDEX,
;  155        0153  2         MASK      : BLOCK [1, WORD],
;  156        0154  2         MSGSIZE,                          ! Resultant message size
;  157        0155  2         OFFSET,                           ! Temporary parameter offset
;  158        0156  2         VEC       : REF BLOCKVECTOR [, 2, WORD];
;  159        0157  2
;  160        0158  2
;  161        0159  2 !
;  162        0160  2 ! Check the parameter descriptor buffer to see if there is any room left
;  163        0161  2 !
;   164           0162  2        IF .NML$GW_PRMDESCNT GEQU PDB$K_NUMBER
;   165           0163  2        THEN
;   166           0164  3            BEGIN
;   167           0165  3   !
;   168           0166  3   ! Signal parameter descriptor buffer overflow.
;   169           0167  3   !
;   170           0168  3            NML$AB_MSGBLOCK [MSB$L_FLAGS] = MSB$M_DET_FLD OR MSB$M_MSG_FLD;
;   171           0169  3            NML$AB_MSGBLOCK [MSB$B_CODE] = NMA$C_STS_MPR; ! Get error code
;   172           0170  3            NML$AB_MSGBLOCK [MSB$W_DETAIL] =
;   173           0171  3                 .SEMANTIC_LIST [PST$W_DATAID]; ! Get parameter code detail
;   174           0172  3            NML$AB_MSGBLOCK [MSB$L_TEXT] = NML$_DSCBFOVF;
;   175           0173  3            NML$BLD_REPLY (NML$AB_MSGBLOCK, MSGSIZE); ! Build message
;   176           0174  3            $SIGNAL_MSG (NML$AB_SNDBUFFER, .MSGSIZE); ! Signal error message
;   177           0175  3
;   178           0176  2            END;
;   179           0177  2   !
;   180           0178  2   ! Add descriptor entry for this parameter.
;   181           0179  2   !
;   182           0180  2        NML$AW_PRM_DES [.NML$GW_PRMDESCNT, PDB$W_INDEX] = .CPT_INDEX;
;   183           0181  2        NML$AW_PRM_DES [.NML$GW_PRMDESCNT, PDB$W_COUNT] = .LENGTH;
;   184           0182  2        NML$AW_PRM_DES [.NML$GW_PRMDESCNT, PDB$A_POINTER] = .POINTER;
;   185           0183  2
;   186           0184  2        NML$GW_PRMDESCNT = .NML$GW_PRMDESCNT + 1; ! Increment descriptor count
;   187           0185  2
;   188           0186  2        RETURN NML$_STS_SUC
;   189           0187  2
;   190           0188  1        END;                                   ! End of NML$SAVEPARAM


                                                                                 .TITLE  NML$PMANIP NML internal parameter manipulation
;                                                                                                   module
                                                                                 .IDENT  \V04-000\

                                                                                 .EXTRN  NML$GB_EVTSRCTYP
                                                                                 .EXTRN  NML$GQ_EVTSRCDSC
                                                                                 .EXTRN  NML$GW_EVTCLASS
                                                                                 .EXTRN  NML$GB_EVTMSKTYP
                                                                                 .EXTRN  NML$GQ_EVTMSKDSC
                                                                                 .EXTRN  NML$GW_EVTSNKADR
                                                                                 .EXTRN  NML$GW_ACP_CHAN
                                                                                 .EXTRN  NML$GL_LOGMASK, NML$GQ_ENTSTRDSC
                                                                                 .EXTRN  NML$AB_QIOBUFFER
                                                                                 .EXTRN  NML$GQ_QIOBFDSC
                                                                                 .EXTRN  NML$AB_EXEBUFFER
                                                                                 .EXTRN  NML$GL_EXEDATPTR
                                                                                 .EXTRN  NML$GQ_EXEDATDSC
                                                                                 .EXTRN  NML$GQ_EXEBFDSC
                                                                                 .EXTRN  NML$AB_RCVBUFFER
                                                                                 .EXTRN  NML$GQ_RCVBFDSC
                                                                                 .EXTRN  NML$AB_SNDBUFFER
                                                                                 .EXTRN  NML$GQ_SNDBFDSC
                                                                                 .EXTRN  NML$GL_RCVDATLEN
                                                                                 .EXTRN  NML$AB_CPTABLE, NML$AB_MSGBLOCK
                                                                                 .EXTRN  NML$AB_ENTITY_ID
                                                                                 .EXTRN  NML$AB_QUALIFIER_ID
                                                                                 .EXTRN  NML$AB_ENTITYDATA
                                                                                 .EXTRN  NML$AB_NML_NMV, NML$AB_PRMSEM
```

```
                                                      .EXTRN  NML$AB_RECBUF, NML$AL_ENTINFTAB
                                                      .EXTRN  NML$AL_PERMINFTAB
                                                      .EXTRN  NML$AW_PRM_DES, NML$GB_CMD_VER
                                                      .EXTRN  NML$GB_ENTITY_CODE
                                                      .EXTRN  NML$GB_ENTITY_FORMAT
                                                      .EXTRN  NML$GL_QUALIFIER_PST
                                                      .EXTRN  NML$GB_QUALIFIER_FORMAT
                                                      .EXTRN  NML$GB_FUNCTION
                                                      .EXTRN  NML$GB_INFO, NML$GB_OPTIONS
                                                      .EXTRN  NML$GL_PRMCODE, NML$GL_PRS_FLGS
                                                      .EXTRN  NML$GL_NML_ENTITY
                                                      .EXTRN  NML$GQ_NETNAMDSC
                                                      .EXTRN  NML$GQ_RECBFDSC
                                                      .EXTRN  NML$GW_PRMDESCNT
                                                      .EXTRN  NML$_DSCBFOVF, NML$_QIOBFOVF
                                                      .EXTRN  NML$_RECBFOVF, NMA$SEARCHFLD
                                                      .EXTRN  NML$BLD_REPLY, NML$BLDP2
                                                      .EXTRN  NML$ERROR_1, NML$ERROR_2

                                                      .PSECT  $CODE$,NOWRT,2

                                      001C 00000      .ENTRY  NML$SAVEPARAM, Save R2,R3,R4                ; 0106
                      54 00000000G  00  9E 00002      MOVAB   NML$AW_PRM_DES, R4                          ;
                      53 00000000G  00  9E 00009      MOVAB   NML$GW_PRMDESCNT, R3                        ;
                      52 00000000G  00  9E 00010      MOVAB   NML$AB_MSGBLOCK, R2                         ;
                      5E            04  C2 00017      SUBL2   #4, SP                                      ;
         50       04  AC            0A  C5 0001A      MULL3   #10, CPT_INDEX, R0                          ; 0146
                         00000000G0040  9F 0001F      PUSHAB  NML$AB_CPTABLE[R0]                          ; 0148
                      50            9E  3C 00026      MOVZWL  @(SP)+, R0                                  ;
                      50            10  C4 00029      MULL2   #16, R0                                     ;
                      20            63  B1 0002C      CMPW    NML$GW_PRMDESCNT, #32                       ; 0162
                                    3A  1F 0002F      BLSSU   1$                                          ;
                      62            06  D0 00031      MOVL    #6, NML$AB_MSGBLOCK                         ; 0168
                  04  A2            05  8E 00034      MNEGB   #5, NML$AB_MSGBLOCK+4                       ; 0169
                         00000000G0040  9F 00038      PUSHAB  NML$AB_PRMSEM[R0]                           ; 0171
                  08  A2            9E  B0 0003F      MOVW    @(SP)+, NML$AB_MSGBLOCK+8                   ;
                  0C  A2 00000000G  8F  D0 00043      MOVL    #NML$_DSCBFOVF, NML$AB_MSGBLOCK+12          ; 0172
                             4004   8F  BB 0004B      PUSHR   #^M<R2,SP>                                  ; 0173
           00000000G  00            02  FB 0004F      CALLS   #2, NML$BLD_REPLY                           ;
                                    6E  DD 00056      PUSHL   MSGSIZE                                     ; 0174
                         00000000G  00  9F 00058      PUSHAB  NML$AB_SNDBUFFER                            ;
                         01F90000   8F  DD 0005E      PUSHL   #33095680                                   ;
           00000000G  00            03  FB 00064      CALLS   #3, LIB$SIGNAL                              ;
                      50            63  3C 0006B 1$:  MOVZWL  NML$GW_PRMDESCNT, R0                        ; 0180
                                  6440  7F 0006E      PUSHAQ  NML$AW_PRM_DES[R0]                          ;
                      9E       04   AC  B0 00071      MOVW    CPT_INDEX, @(SP)+                           ;
                               02 A440  7F 00075      PUSHAQ  NML$AW_PRM_DES+2[R0]                        ; 0181
                      9E       08   AC  B0 00079      MOVW    LENGTH, @(SP)+                              ;
                               04 A440  7F 0007D      PUSHAQ  NML$AW_PRM_DES+4[R0]                        ; 0182
                      9E       0C   AC  D0 00081      MOVL    POINTER, @(SP)+                             ;
                                    63  B6 00085      INCW    NML$GW_PRMDESCNT                            ; 0184
                      50            01  D0 00087      MOVL    #1, R0                                      ; 0186
                                        04 0008A      RET                                                 ; 0188

; Routine Size:  139 bytes,    Routine Base:  $CODE$ + 0000
```

```
1 %SBTTL 'NML$CHKPRMVAL  Check parameter value'
1 GLOBAL ROUTINE NML$CHKPRMVAL (CPT_INDEX, LEN, ADR) =
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine verifies that parameter values from the NICE message
1 !       fall within valid boundaries.
1 !
1 ! FORMAL PARAMETERS:
1 !
1 !       CPT_INDEX       Index into change parameter table.
1 !       LEN             Byte count of parameter.
1 !       ADR             Address of parameter.
1 !
1 ! IMPLICIT INPUTS:
1 !
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 ! COMPLETION CODES:
1 !
1 !       Returns success (NML$_STS_SUC) if the paramter value is within range.
1 !
1 ! SIDE EFFECTS:
1 !
1 !       An error message (NMA$C_STS_PVA) is signalled if the value is bad.
1 !
1 !--
1
2     BEGIN
2
2     LOCAL
2         MAX,                            ! Maximum parameter value (0 if no limit)
2         MIN,                            ! Minimum parameter value
2         VAL,                            ! Parameter value to compare
2         STATUS;                         ! Status of the range checking operations
2 !
2 ! The parameter semantic table index is determined by looking in the change
2 ! parameter table.
2 !
2     BIND
2         CPT_LIST      = NML$AB_CPTABLE [.CPT_INDEX, 0,0,0,0]
2                         : BBLOCK [CPT$K_ENTRYLEN],
2         SEMANTIC_LIST = NML$AB_PRMSEM [.CPT_LIST [CPT$W_PSTINDEX], 0,0,0,0]
2                         : BBLOCK [PST$K_ENTRYLEN];
2 !
2 ! Pick up the values for comparison.
2 !
2     MIN = .SEMANTIC_LIST [PST$L_MINVALUE];
2     MAX = .SEMANTIC_LIST [PST$L_MAXVALUE];
2     STATUS = NML$_STS_SUC;
2 !
```

```
;   249            0246  2  ! If the parameter is a string then get the byte count (a byte).  If the
;   250            0247  2  ! parameter is not a string then get the value of the appropriate width
;   251            0248  2  ! (byte, word, longword).
;   252            0249  2  !
;   253            0250  2      IF .SEMANTIC_LIST [PST$B_FORMAT] EQLU NML$K_STRING
;   254            0251  2      THEN
;   255            0252  2          VAL = .LEN
;   256            0253  2      ELSE
;   257            0254  2          VAL = .(.ADR)<0,.LEN*8>;
;   258            0255  2  !
;   259            0256  2  ! Check the minimum parameter value.
;   260            0257  2  !
;   261            0258  2      IF .VAL LSSU .MIN
;   262            0259  2      THEN
;   263            0260  2          STATUS = NML$_STS_PVA;
;   264            0261  2  !
;   265            0262  2  ! If the maximum value has a zero in it then don't bother to check it.
;   266            0263  2  !
;   267            0264  2      IF  .MAX NEQU 0
;   268            0265  2      AND .VAL GTRU .MAX
;   269            0266  2      THEN
;   270            0267  2          STATUS = NML$_STS_PVA;
;   271            0268  2  !
;   272            0269  2  ! If the parameter is not within range then signal a parameter value error.
;   273            0270  2  !
;   274            0271  2     IF NOT .STATUS
;   275            0272  2     THEN
;   276            0273  2          NML$ERROR_2 (NMA$C_STS_PVA, .SEMANTIC_LIST [PST$W_DATAID]);
;   277            0274  2
;   278            0275  2      RETURN NML$_STS_SUC
;   279            0276  2
;   280            0277  1      END;                                        ! End of NML$CHKPRMVAL



                                             003C 00000          .ENTRY  NML$CHKPRMVAL, Save R2,R3,R4,R5                   ; 0190
              50      04   AC                  0A   C5 00002          MULL3   #10, CPT_INDEX, R0                                ; 0235
                           00000000G0040       9F 00007          PUSHAB  NML$AB_CPTABLE[R0]                                ; 0237
                           50                  9E   3C 0000E          MOVZWL  @(SP)+, R0                                        ;
                           50                  10   C4 00011          MULL2   #16, R0                                           ;
                           51 00000000G0040    9E 00014          MOVAB   NML$AB_PRMSEM[R0], R1                             ;
                           55        04   A1   D0 0001C          MOVL    4(R1), MIN                                        ; 0242
                           54        08   A1   D0 00020          MOVL    8(R1), MAX                                        ; 0243
                           53             01   D0 00024          MOVL    #1, STATUS                                        ; 0244
                           03        02   A1   91 00027          CMPB    2(R1), #3                                         ; 0250
                                          06   12 0002B          BNEQ    1$                                                ;
                           52        08   AC   D0 0002D          MOVL    LEN, VAL                                          ; 0252
                                          0B   11 00031          BRB     2$                                                ;
              50      08   AC             03   78 00033 1$:      ASHL    #3, LEN, R0                                       ; 0254
    52        0C      BC   50             00   EF 00038          EXTZV   #0, R0, @ADR, VAL                                 ;
                           55             52   D1 0003E 2$:      CMPL    VAL, MIN                                          ; 0258
                                          03   1E 00041          BGEQU   3$                                                ;
                           53             20   CE 00043          MNEGL   #32, STATUS                                       ; 0260
                                          54   D5 00046 3$:      TSTL    MAX                                               ; 0264
                                          08   13 00048          BEQL    4$                                                ;
```

```
                                   54            52  D1 0004A          CMPL    VAL, MAX                                 ; 0265
                                                 03  1B 0004D          BLEQU   4$                                       ;
                                   53            20  CE 0004F          MNEGL   #32, STATUS                              ; 0267
                                   0D            53  E8 00052 4$:      BLBS    STATUS, 5$                               ; 0271
                                   7E            61  3C 00055          MOVZWL  (R1), -(SP)                              ; 0273
                                   7E            10  CE 00058          MNEGL   #16, -(SP)                               ;
                        00000000G  00            02  FB 0005B          CALLS   #2, NMLSERROR_2                          ;
                                   50            01  D0 00062 5$:      MOVL    #1, R0                                   ; 0275
                                                     04 00065          RET                                              ; 0277

; Routine Size:  102 bytes,     Routine Base:  $CODE$ + 008B
;  282        0278  1 %SBTTL 'NML$BLDSETQBF  Build SET/CLEAR QIO buffers'
;  283        0279  1 GLOBAL ROUTINE NML$BLDSETQBF (FUNC, DB,
;  284        0280  1                                KEYID1, KEYLEN1, KEYADR1,
;  285        0281  1                                KEYID2, KEYLEN2, KEYADR2,
;  286        0282  1                                NFBBFDSC, NFBDSC,
;  287        0283  1                                P2BFDSC,  P2DSC,
;  288        0284  1                                VALBFDSC, VALDSC)
;  289        0285  1                                       : NOVALUE =
;  290        0286  1
;  291        0287  1 !++
;  292        0288  1 ! FUNCTIONAL DESCRIPTION:
;  293        0289  1 !
;  294        0290  1 !       This routine builds a QIO buffer for parameter modifications.
;  295        0291  1 !
;  296        0292  1 ! FORMAL PARAMETERS:
;  297        0293  1 !
;  298        0294  1 !       FUNC            Control function - NFB$C_FC_SET or NFB$C_FC_CLEAR
;  299        0295  1 !       DB              Database ID
;  300        0296  1 !       KEYID1          Search key one ID
;  301        0297  1 !       KEYLEN1         Search key one length
;  302        0298  1 !       KEYADR1         Search key one address
;  303        0299  1 !       KEYID2          Search key two ID
;  304        0300  1 !       KEYLEN2         Search key two length
;  305        0301  1 !       KEYADR2         Search key two address
;  306        0302  1 !       NFBBFDSC        Descriptor of control function buffer (P1)
;  307        0303  1 !       NFBDSC          Descriptor of resulting control function buffer (P1)
;  308        0304  1 !       P2BFDSC         Descriptor of P2 buffer
;  309        0305  1 !       P2DSC           Descriptor of resulting P2 buffer
;  310        0306  1 !       VALBFDSC        Descriptor of parameter value buffer (P4)
;  311        0307  1 !       VALDSC          Descriptor of resulting parameter value data (P4)
;  312        0308  1 !
;  313        0309  1 !       NML$AW_PRM_DES  List of parameter descriptors
;  314        0310  1 !       NML$GW_PRMDESCNT Count of parameter descriptors
;  315        0311  1 !
;  316        0312  1 ! OUTPUTS:
;  317        0313  1 !
;  318        0314  1 !       Output buffers and descriptors built.
;  319        0315  1 !--
;  320        0316  1
;  321        0317  2 BEGIN
;  322        0318  2
;  323        0319  2 MAP
;  324        0320  2     NFBBFDSC : REF DESCRIPTOR,
;  325        0321  2     NFBDSC   : REF DESCRIPTOR,
;  326        0322  2     P2BFDSC  : REF DESCRIPTOR,
;  327        0323  2     P2DSC    : REF DESCRIPTOR,
;  328        0324  2     VALBFDSC : REF DESCRIPTOR,
;  329        0325  2     VALDSC   : REF DESCRIPTOR;
;  330        0326  2
;  331        0327  2 LOCAL
;  332        0328  2     MSGSIZE,
;  333        0329  2     CPT_INDEX,
;  334        0330  2     NFB : REF BBLOCK [NFB$C_LENGTH],
;  335        0331  2     VALADR,
;  336        0332  2     VALPTR,
;  337        0333  2     VALLEN,
;  338        0334  2     VALTYP,
2           CPT:        REF BBLOCK [CPT$K_ENTRYLEN],
2           PST:        REF BBLOCK [PST$K_ENTRYLEN];
2
2       BIND
2           VALBUF = VALBFDSC [DSC$A_POINTER] : REF BBLOCK;
2
2
2       !
2       ! Setup NFB descriptor and header
2       !
2
2       NFBDSC [DSC$A_POINTER] = NFB = .NFBBFDSC [DSC$A_POINTER];
2       CH$FILL(0, $BYTEOFFSET(NFB$L_FLDID), .NFB);     ! Zero NFB header
2       NFB [NFB$B_FCT] = .FUNC;
2       NFB [NFB$B_DATABASE] = .DB;
2       NFB [NFB$L_SRCH_KEY] = .KEYID1;
2       NFB [NFB$L_SRCH2_KEY] = .KEYID2;
2       NFB = NFB[NFB$L_FLDID];
2
2       !
2       ! Build the P2 buffer.  The P2 buffer contains the valuns of the search
2       ! keys.  The search keys are used by NETACP to identify the database entry
2       ! to be updated.
2       !
2       SELECTONEU .KEYID1 OF
2           SET
2           [NFB$C_EFI_SIN]:                ! Logging filters (sink node)
2               NML$BLDP2 (0, .(.KEYADR1)<0,16>, -1, 0, .P2BFDSC, .P2DSC);
2
2           [NFB$C_ESI_SNK]:                ! Logging sink
2               NML$BLDP2 (0, .(.KEYADR1)<0,8>, -1, 0, .P2BFDSC, .P2DSC);
2
2           [NFB$C_NDI_ADD]:                ! Node (by address)
2               NML$BLDP2 (0, .(.KEYADR1)<0,16>, -1, 0, .P2BFDSC, .P2DSC);
2
2           [NFB$C_XGI_GRP]:                ! Protocol Groups.
2               !
2               ! Protocol Group is always qualified with a DTE ID.  The DTE ID
2               ! is the second search key.
2               !
2               NML$BLDP2 (.KEYLEN1, .KEYADR1, .KEYLEN2, .KEYADR2,
2                                               .P2BFDSC, .P2DSC);
2
2           [NFB$C_XNI_NET]:
3               BEGIN
3               !
3               ! If search key 1 length is zero, then the QIO is for the "active
3               ! X-25 Protocol network".  Pass NML$BLDP2 the code to indicate that
3               ! the key value is a word.
3               !
3               IF .KEYLEN1 EQL 0 THEN
3                   KEYLEN1 = -2;
3               NML$BLDP2 (.KEYLEN1, .KEYADR1, -1, 0, .P2BFDSC, .P2DSC);
2               END;
2
2           [OTHERWISE]:
2               NML$BLDP2 (.KEYLEN1, .KEYADR1, -1, 0, .P2BFDSC, .P2DSC);
```

```
2
2       TES;
2
2   !
2   ! Setup parameter value buffer descriptor
2   !
2
2   VALDSC [DSC$A_POINTER] = VALPTR = .VALBFDSC [DSC$A_POINTER];
2
2   !
2   ! For each entry in the parameter descriptor list, add its ACP identifier
2   ! to the NFB and its value to the value buffer.
2   !
2   INCR I FROM 0 TO .NML$GW_PRMDESCNT - 1 DO
3       BEGIN
3
3       CPT_INDEX = .NML$AW_PRM_DES [.I, PDB$W_INDEX];
3       CPT = NML$AB_CPTABLE [.CPT_INDEX, 0,0,0,0];
3       PST = NML$AB_PRMSEM [.CPT [CPT$W_PSTINDEX], 0,0,0,0];
3       VALLEN =  .NML$AW_PRM_DES [.I, PDB$W_COUNT];
3       VALADR = .NML$AW_PRM_DES [.I, PDB$A_POINTER];
3
4       IF (.VALPTR + .VALLEN + 2 LSSU
3           .VALBFDSC [DSC$A_POINTER] + .VALBFDSC [DSC$W_LENGTH]) AND
4           (.NFB + 4 LSSU
4           .NFBBFDSC [DSC$A_POINTER] + .NFBBFDSC [DSC$W_LENGTH])
4
3       THEN
4           BEGIN
4           NFB[0,0,32,0] = .PST [PST$L_NFBID];
4           NFB = .NFB + 4;
4
4           IF .VALLEN  GTRU 0
4           THEN
5               BEGIN
6               VALTYP = .(PST [PST$L_NFBID])
5                           <$BITPOSITION (NFB$V_TYP),
5                             $FIELDWIDTH (NFB$V_TYP)>;
5               IF .VALTYP EQLU NFB$C_TYP_STR
5               THEN
6                   BEGIN
6
6                   (.VALPTR)<0,16> = .VALLEN;      ! Set count
6                   VALPTR = .VALPTR + 2;
6                   VALPTR = CH$MOVE (.VALLEN, .VALADR, .VALPTR);
6
6                   END
5               ELSE
6                   BEGIN
6
6                   (.VALPTR)<0,32> = .(.VALADR)<0,.VALLEN*8>;
6                   VALPTR = .VALPTR + 4;   ! Increment data pointer
6
5                   END;
4               END;
4           END
3       ELSE
```

```
;   453         0449  4              BEGIN
;   454         0450  4
;   455         0451  4              NML$AB_MSGBLOCK [MSB$L_FLAGS] = MSB$M_MSG_FLD; ! Set message text flag
;   456         0452  4              NML$AB_MSGBLOCK [MSB$B_CODE] = NMA$C_STS_MPR;
;   457         0453  4              NML$AB_MSGBLOCK [MSB$L_TEXT] = NML$_QIOBFOVF;
;   458         0454  4              NML$BLD_REPLY (NML$AB_MSGBLOCK, MSGSIZE); ! Build message
;   459         0455  4              $SIGNAL_MSG (NML$AB_SNDBUFFER, .MSGSIZE); ! Signal it
;   460         0456  4
;   461         0457  3              END;
;   462         0458  3
;   463         0459  2          END;
;   464         0460  2
;   465         0461  2  NFB [0,0,32,0] = NFB$C_ENDOFLIST;
;   466         0462  2  NFBDSC [DSC$W_LENGTH] = .NFB - .NFBDSC[DSC$A_POINTER] + 4;
;   467         0463  2
;   468         0464  2  VALDSC [DSC$W_LENGTH] = .VALPTR - .VALDSC[DSC$A_POINTER];
;   469         0465  2
;   470         0466  1  END;                                    ! End of NML$BLDSETQBF



                                              0FFC 00000          .ENTRY   NML$BLDSETQBF, Save R2,R3,R4,R5,R6,R7,R8,-  ; 0279
                                                                           R9,R10,R11                                  ;
                           5E              14   C2 00002          SUBL2    #20, SP                                     ;
                                    34     AC   DD 00005          PUSHL    VALBFDSC                                    ; 0339
               50     24   AC              04   C1 00008          ADDL3    #4, NFBBFDSC, R0                            ; 0346
                           56              60   D0 0000D          MOVL     (R0), NFB                                   ;
               51     28   AC              04   C1 00010          ADDL3    #4, NFBDSC, R1                              ;
                           61              56   D0 00015          MOVL     NFB, (R1)                                   ;
      10       00          6E              00   2C 00018          MOVC5    #0, (SP), #0, #16, (NFB)                    ; 0347
                                           66      0001D                                                               ;
                           86       04     AC   90 0001E          MOVB     FUNC, (NFB)+                                ; 0348
                      01   A6       08     AC   90 00022          MOVB     DB, 1(NFB)                                  ; 0349
                           50       0C     AC   D0 00027          MOVL     KEYID1, R0                                  ; 0350
                      03   A6              50   D0 0002B          MOVL     R0, 3(NFB)                                  ;
                      07   A6       18     AC   D0 0002F          MOVL     KEYID2, 7(NFB)                              ; 0351
                           56              0F   C0 00034          ADDL2    #15, NFB                                    ; 0352
                06010010   8F              50   D1 00037          CMPL     R0, #100728848                              ; 0361
                                           21   13 0003E          BEQL     2$                                          ;
                07010010   8F              50   D1 00040          CMPL     R0, #117506064                              ; 0364
                                           0F   12 00047          BNEQ     1$                                          ;
                           7E       2C     AC   7D 00049          MOVQ     P2BFDSC, -(SP)                              ; 0365
                                           7E   D4 0004D          CLRL     -(SP)                                       ;
                           7E              01   CE 0004F          MNEGL    #1, -(SP)                                   ;
                           7E       14     BC   9A 00052          MOVZBL   @KEYADR1, -(SP)                             ;
                                           16   11 00056          BRB      3$                                          ;
                02010012   8F              50   D1 00058 1$:      CMPL     R0, #33619986                               ; 0367
                                           11   12 0005F          BNEQ     4$                                          ;
                           7E       2C     AC   7D 00061 2$:      MOVQ     P2BFDSC, -(SP)                              ; 0368
                                           7E   D4 00065          CLRL     -(SP)                                       ;
                           7E              01   CE 00067          MNEGL    #1, -(SP)                                   ;
                           7E       14     BC   3C 0006A          MOVZWL   @KEYADR1, -(SP)                             ;
                                           7E   D4 0006E 3$:      CLRL     -(SP)                                       ;
                                           32   11 00070          BRB      8$                                          ;
                0A020041   8F              50   D1 00072 4$:      CMPL     R0, #167903297                              ; 0370
```

```
                                                    0A 12 00079         BNEQ    5$                                      ;
                                    7E         2C   AC 7D 0007B         MOVQ    P2BFDSC, -(SP)                          ; 0376
                                    7E         1C   AC 7D 0007F         MOVQ    KEYLEN2, -(SP)                          ; 0375
                                                    1B 11 00083         BRB     7$                                      ;
                          09020041  8F              50 D1 00085 5$:     CMPL    R0, #151126081                          ; 0378
                                                    09 12 0008C         BNEQ    6$                                      ;
                                               10   AC D5 0008E         TSTL    KEYLEN1                                 ; 0385
                                                    04 12 00091         BNEQ    6$                                      ;
                                10  AC              02 CE 00093         MNEGL   #2, KEYLEN1                             ; 0386
                                    7E         2C   AC 7D 00097 6$:     MOVQ    P2BFDSC, -(SP)                          ; 0391
                                                    7E D4 0009B         CLRL    -(SP)                                   ;
                                    7E              01 CE 0009D         MNEGL   #1, -(SP)                               ;
                                    7E         10   AC 7D 000A0 7$:     MOVQ    KEYLEN1, -(SP)                          ;
                         00000000G  00              06 FB 000A4 8$:     CALLS   #6, NML$BLDP2                           ;
                                    5B         38   AC D0 000AB         MOVL    VALDSC, R11                             ; 0399
                     50             6E              04 C1 000AF         ADDL3   #4, (SP), R0                            ;
                                    53              60 D0 000B3         MOVL    (R0), VALPTR                            ;
                                04  AB              53 D0 000B6         MOVL    VALPTR, 4(R11)                          ;
                                0C  AE  00000000G   00 3C 000BA         MOVZWL  NML$GW_PRMDESCNT, 12(SP)                ; 0405
                                    5A              01 CE 000C2         MNEGL   #1, I                                   ;
                                                  00D8 31 000C5         BRW     12$                                     ;
                                         00000000G004A 7F 000C8 9$:     PUSHAQ  NML$AW_PRM_DES[I]                       ; 0408
                                    59              9E 3C 000CF         MOVZWL  @(SP)+, CPT_INDEX                       ;
                     50             59              0A C5 000D2         MULL3   #10, CPT_INDEX, R0                      ; 0409
                                    58   00000000G0040 9E 000D6         MOVAB   NML$AB_CPTABLE[R0], CPT                 ;
                                    50              68 3C 000DE         MOVZWL  (CPT), R0                               ; 0410
                                    50              10 C4 000E1         MULL2   #16, R0                                 ;
                                04  AE   00000000G0040 9E 000E4         MOVAB   NML$AB_PRMSEM[R0], PST                  ;
                                         00000000G004A 7F 000ED         PUSHAQ  NML$AW_PRM_DES+2[I]                     ; 0411
                                    57              9E 3C 000F4         MOVZWL  @(SP)+, VALLEN                          ;
                                         00000000G004A 7F 000F7         PUSHAQ  NML$AW_PRM_DES+4[I]                     ; 0412
                                08  AE              9E D0 000FE         MOVL    @(SP)+, VALADR                          ;
                                    51         02 A743 9E 00102         MOVAB   2(VALLEN)[VALPTR], R1                   ; 0414
                                    52         34   BC 3C 00107         MOVZWL  @VALBFDSC, R2                           ; 0415
                     54             6E              04 C1 0010B         ADDL3   #4, (SP), R4                            ;
                     50             64              52 C1 0010F         ADDL3   R2, (R4), R0                            ;
                                    50              51 D1 00113         CMPL    R1, R0                                  ;
                                                    49 1E 00116         BGEQU   11$                                     ;
                                    51         04   A6 9E 00118         MOVAB   4(R6), R1                               ; 0416
                                    52         24   BC 3C 0011C         MOVZWL  @NFBBFDSC, R2                           ; 0417
                     54         24  AC              04 C1 00120         ADDL3   #4, NFBBFDSC, R4                        ;
                     50             64              52 C1 00125         ADDL3   R2, (R4), R0                            ;
                                    50              51 D1 00129         CMPL    R1, R0                                  ;
                                                    33 1E 0012C         BGEQU   11$                                     ;
                     50         04  AE              0C C1 0012E         ADDL3   #12, PST, R0                            ; 0421
                                    86              60 D0 00133         MOVL    (R0), (NFB)+                            ;
                                                    57 D5 00136         TSTL    VALLEN                                  ; 0424
                                                    66 13 00138         BEQL    12$                                     ;
                     50         04  AE              0E C1 0013A         ADDL3   #14, PST, R0                            ; 0427
    10   AE          60             02              00 EF 0013F         EXTZV   #0, #2, (R0), VALTYP                    ;
                                    02         10   AE D1 00145         CMPL    VALTYP, #2                              ; 0430
                                                    0A 12 00149         BNEQ    10$                                     ;
                                    83              57 B0 0014B         MOVW    VALLEN, (VALPTR)+                       ; 0434
                     63         08  BE              57 28 0014E         MOVC3   VALLEN, @VALADR, (VALPTR)               ; 0436
                                                    4B 11 00153         BRB     12$                                     ; 0430
                     50             57              03 78 00155 10$:    ASHL    #3, VALLEN, R0                          ; 0442
         83      08  BE             50              00 EF 00159         EXTZV   #0, R0, @VALADR, (VALPTR)+              ;
```

```
                                            3F  11 0015F         BRB      12$                                              ; 0424
                  00000000G  00             04  D0 00161  11$:   MOVL     #4, NML$AB_MSGBLOCK                              ; 0451
                  00000000G  00             05  8E 00168         MNEGB    #5, NML$AB_MSGBLOCK+4                            ; 0452
                  00000000G  00  00000000G  8F  D0 0016F         MOVL     #NML$_QIOBFOVF, NML$AB_MSGBLOCK+12               ; 0453
                                        14  AE  9F 0017A         PUSHAB   MSGSIZE                                          ; 0454
                                 00000000G  00  9F 0017D         PUSHAB   NML$AB_MSGBLOCK                                  ;
                  00000000G  00             02  FB 00183         CALLS    #2, NM[$BLD_REPLY                                ;
                                        14  AE  DD 0018A         PUSHL    MSGSIZE                                          ; 0455
                                 00000000G  00  9F 0018D         PUSHAB   NML$AB_SNDBUFFER                                 ;
                                 01F90000   8F  DD 00193         PUSHL    #33095680                                        ;
                  00000000G  00             03  FB 00199         CALLS    #3, LIB$SIGNAL                                   ;
              02             5A         0C  AE  F2 001A0  12$:   AOBLSS   12(SP), I, 13$                                   ; 0405
                                            03  11 001A5         BRB      14$                                              ;
                                          FF1E  31 001A7  13$:   BRW      9$                                               ;
                                            66  D4 001AA  14$:   CLRL     (NFB)                                            ; 0461
              50         28  AC             04  C1 001AC         ADDL3    #4, NFBDSC, R0                                   ; 0462
                             56             60  C2 001B1         SUBL2    (R0), R6                                         ;
          28  BC             56             04  A1 001B4         ADDW3    #4, R6, @NFBDSC                                  ;
              6B             53         04  AB  A3 001B9         SUBW3    4(R1?), VALPTR, (R11)                            ; 0464
                                                04 001BE         RET                                                       ; 0466

; Routine Size:  447 bytes,    Routine Base:  $CODE$ + 00F1


;  471          0467  1
```

```
1 %SBTTL 'NML$ADD_FIELDS  Add parameter fields to record'
1 GLOBAL ROUTINE NML$ADD_FIELDS (BUFSIZE, RTNDSC) =
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine adds fields to a permanent data base record.
1 !
1 ! FORMAL PARAMETERS:
1 !
1 !       BUFSIZE Maximum size of the record buffer.
1 !       RTNDSC  Address of the current record descriptor.
1 !
1 ! IMPLICIT INPUTS:
1 !
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !
1 !       The record descriptor pointed to by RTNDSC is updated to include
1 !       any fields added to the record.
1 !
1 ! ROUTINE VALUE:
1 ! COMPLETION CODES:
1 !
1 !       NONE
1 !
1 ! SIDE EFFECTS:
1 !
1 !       NONE
1 !
1 !--
1
2   BEGIN
2
2   LOCAL
2       CPT_INDEX,                      ! Change parameter table index
2       SEM_INDEX,                      ! Semantic table index
2       FLDLEN,                         ! Field length
2       FLDADR,                         ! Field address
2       MSGSIZE,                        ! Message size
2       ROUTINE_ADR,                    ! Temporary routine address
2       STATUS;
2
2   INCR I FROM 0 TO .NML$GW_PRMDESCNT - 1 DO
3       BEGIN
3
3       FLDLEN = .NML$AW_PRM_DES [.I, PDB$W_COUNT];
3       FLDADR = .NML$AW_PRM_DES [.I, PDB$A_POINTER];
3
3       CPT_INDEX = .NML$AW_PRM_DES [.I, PDB$W_INDEX];
3       ROUTINE_ADR = .NML$AB_CPTABLE [.CPT_INDEX, CPT$A_DEFINE_RTN];
3       SEM_INDEX = .NML$AB_CPTABLE [.CPT_INDEX, CPT$W_PSTINDEX];
3
4       IF NOT (STATUS =
4               (.ROUTINE_ADR) (NML$AB_PRMSEM [.SEM_INDEX, 0,0,0,0],
4                               .BUFSIZE,
;  530      0525  4                                .FLDLEN,
;  531      0526  4                                .FLDADR,
;  532      0527  4                                .RTNDSC))
;  533      0528  3          THEN
;  534      0529  3              RETURN .STATUS
;  535      0530  3
;  536      0531  2          END;
;  537      0532  2
;  538      0533  2      RETURN NML$_STS_SUC
;  539      0534  2
;  540      0535  1      END;                                    ! End of NML$ADD_FIELDS





                                    03FC 00000          .ENTRY   NML$ADD_FIELDS, Save R2,R3,R4,R5,R6,R7,R8,-  ; 0469
                                                                 R9                                            ;
                      59 00000000G   00   9E 00002          MOVAB    NML$AW_PRM_DES+2, R9                          ;
                      55 00000000G   00   3C 00009          MOVZWL   NML$GW_PRMDESCNT, R5                          ; 0512
                      54             01   CE 00010          MNEGL    #1, I                                         ; 0524
                                     47   11 00013          BRB      2$                                            ;
                                   6944   7F 00015 1$:      PUSHAQ   NML$AW_PRM_DES+2[I]                           ; 0515
                      58             9E   3C 00018          MOVZWL   @(SP)+, FLDLEN                                ;
                                02 A944   7F 0001B          PUSHAQ   NML$AW_PRM_DES+4[I]                           ; 0516
                      57             9E   D0 0001F          MOVL     @(SP)+, FLDADR                                ;
                                FE A944   7F 00022          PUSHAQ   NML$AW_PRM_DES[I]                             ; 0518
                      53             9E   3C 00026          MOVZWL   @(SP)+, CPT_INDEX                             ;
              51      53             0A   C5 00029          MULL3    #10, CPT_INDEX, R1                            ; 0519
                         00000000G00041   9F 0002D          PUSHAB   NML$AB_CPTABLE+2[R1]                          ;
                      56             9E   D0 00034          MOVL     @(SP)+, ROUTINE_ADR                           ;
                         00000000G00041   9F 00037          PUSHAB   NML$AB_CPTABLE[R1]                            ; 0520
                      52             9E   3C 0003E          MOVZWL   @(SP)+, SEM_INDEX                             ;
                                08   AC   DD 00041          PUSHL    RTNDSC                                        ; 0527
                                     57   DD 00044          PUSHL    FLDADR                                        ; 0526
                                     58   DD 00046          PUSHL    FLDLEN                                        ; 0525
                                04   AC   DD 00048          PUSHL    BUFSIZE                                       ; 0524
              51      52             04   78 0004B          ASHL     #4, SEM_INDEX, R1                             ; 0523
                         00000000G00041   9F 0004F          PUSHAB   NML$AB_PRMSEM[R1]                             ;
                      66             05   FB 00056          CALLS    #5, (ROUTINE_ADR)                             ;
                      07             50   E9 00059          BLBC     STATUS, 3$                                    ;
              B5      54             55   F2 0005C 2$:      AOBLSS   R5, I, 1$                                     ; 0522
                      50             01   D0 00060          MOVL     #1, R0                                        ; 0533
                                          04 00063 3$:      RET                                                    ; 0535

; Routine Size:  100 bytes,    Routine Base:  $CODE$ + 02B0
```

```
1 %SBTTL 'NML$DEL_FIELDS  Delete parameter fields from record'
1 GLOBAL ROUTINE NML$DEL_FIELDS (RTNDSC) =
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine deletes the entire list of parameters in the parameter
1 !       descriptor buffer from the specified record buffer.
1 !
1 ! FORMAL PARAMETERS:
1 !
1 !       RTNDSC contains the address of the current record descriptor.
1 !
1 ! IMPLICIT INPUTS:
1 !
1 !       NML$GW_PRMDESCNT contains the number of parameter descriptors.
1 !       NML$AW_PRM_DES is a list of parameter descriptors.
1 !       NML$AB_PRMSEM is the parameter semantic table.
1 !
1 ! IMPLICIT OUTPUTS:
1 !
1 !       The record descriptor pointed to by RTNDSC is updated to reflect
1 !       any fields deleted from the record.
1 !
1 ! ROUTINE VALUE:
1 ! COMPLETION CODES:
1 !
1 !       Always returns success (NML$_STS_SUC).
1 !
1 ! SIDE EFFECTS:
1 !
1 !       NONE
1 !
1 !--
1
2     BEGIN
2
2     LOCAL
2         CPT_INDEX,
2         SEM_INDEX,
2         ROUTINE_ADR;
2
2     INCR I FROM 0 TO .NML$GW_PRMDESCNT - 1 DO
3         BEGIN
3
3         CPT_INDEX = .NML$AW_PRM_DES [.I, PDB$W_INDEX];
3         ROUTINE_ADR = .NML$AB_CPTABLE [.CPT_INDEX, CPT$A_PURGE_RTN];
3         SEM_INDEX = .NML$AB_CPTABLE [.CPT_INDEX, CPT$W_PSTINDEX];
3
3         (.ROUTINE_ADR) (.RTNDSC,
3                         NML$AB_PRMSEM [.SEM_INDEX, 0,0,0,0]);
3
2         END;
2
2     RETURN NML$_STS_SUC
2
1     END;                                  ! End of NML$DEL_FIELDS
```

```
                                          007C 00000          .ENTRY  NML$DEL_FIELDS, Save R2,R3,R4,R5,R6                   ; 0537
                     55 00000000G   00      3C 00002          MOVZWL  NML$GW_PRMDESCNT, R5                                  ; 0578
                     54             01      CE 00009          MNEGL   #1, I                                                 ; 0585
                                    33      11 0000C          BRB     2$                                                    ;
                        00000000G0044       7F 0000E 1$:      PUSHAQ  NML$AW_PRM_DES[I]                                     ; 0581
                     53             9E      3C 00015          MOVZWL  @(SP)+, CPT_INDEX                                     ;
          50         53             0A      C5 00018          MULL3   #10, CPT_INDEX, R0                                    ; 0582
                        00000000G0040       9F 0001C          PUSHAB  NML$AB_CPTABLE+6[R0]                                  ;
                     56             9E      D0 00023          MOVL    @(SP)+, ROUTINE_ADR                                   ;
                        00000000G0040       9F 00026          PUSHAB  NML$AB_CPTABLE[R0]                                    ; 0583
                     52             9E      3C 0002D          MOVZWL  @(SP)+, SEM_INDEX                                     ;
          50         52             04      78 00030          ASHL    #4, SEM_INDEX, R0                                     ; 0586
                        00000000G0040       9F 00034          PUSHAB  NML$AB_PRMSEM[R0]                                     ;
                                 04 AC      DD 0003B          PUSHL   RTNDSC                                                ;
                     66             02      FB 0003E          CALLS   #2, (ROUTINE_ADR)                                     ;
          C9         54             55      F2 00041 2$:      AOBLSS  R5, I, 1$                                             ; 0578
                     50             01      D0 00045          MOVL    #1, R0                                                ; 0590
                                            04 00048          RET                                                           ; 0592

; Routine Size:  73 bytes,    Routine Base:  $CODE$ + 0314
```

```
1 %SBTTL 'NMLSREADPARLIST  Show parameters from buffer'
1 GLOBAL ROUTINE NMLSREADPARLIST (BUFDSC, MSGSIZE, TABDSC, DATDSC) =
1
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine builds a message from the list of parameters specified.
1 !
1 ! FORMAL PARAMETERS:
1 !
1 !       BUFDSC          Address of message buffer descriptor.
1 !       MSGSIZE         Address of longword to contain resulting message size.
1 !       TABDSC          Address of parameter table descriptor.
1 !       DATDSC          Address of data buffer descriptor.
1 !
1 ! IMPLICIT INPUTS:
1 !
1 !       NONE
1 !
1 ! IMPLICIT OUTPUTS:
1 !
1 !       NONE
1 !
1 ! ROUTINE VALUE:
1 ! COMPLETION CODES:
1 !
1 !       Always returns success (NMLS_STS_SUC).
1 !
1 ! SIDE EFFECTS:
1 !
1 !       NONE
1 !
1 !--
1
2     BEGIN
2
2     MAP
2         TABDSC : REF DESCRIPTOR;
2
2     LOCAL
2         INDEX;
2
2     BIND
2         TABLE = TABDSC [DSC$A_POINTER] : REF BBLOCKVECTOR [, 6];
2
2 !
2 ! If table address is null then the specified information type is not
2 ! applicable to this entity.
2 !
2     IF .TABLE EQLA 0
2     THEN
2         NMLSERROR_1 (NMASC_STS_FOP);
2
2     INCR I FROM 0 TO .TABDSC [DSC$W_LENGTH] - 1 DO
3         BEGIN
3
3         INDEX = .TABLE [.I, 0,0,16,0];  ! Get table index
```

```
;  657        0650  3             (.TABLE [.I, 2,0,32,0]) (NMLSAB PRMSEM [.INDEX, 0,0,0,0],
;  658        0651  3                                      .BUFDSC,
;  659        0652  3                                      .MSGSIZE,
;  660        0653  3                                      .DATDSC);
;  661        0654  3
;  662        0655  3
;  663        0656  2             END;
;  664        0657  2
;  665        0658  2         RETURN NML$_STS_SUC
;  666        0659  2
;  667        0660  1         END;                                    ! End of NMLSREADPARLIST



                                            003C 00000          .ENTRY   NMLSREADPARLIST, Save R2,R3,R4,R5             ; 0594
         54       0C    AC               04   C1 00002          ADDL3    #4, TABDSC, R4                                ; 0636
                                         64   D5 00007          TSTL     (R4)                                          ; 0642
                                         0A   12 00009          BNEQ     1$                                            ;
                        7E               0D   CE 0000B          MNEGL    #13, -(SP)                                    ; 0644
            00000000G   00               01   FB 0000E          CALLS    #1, NMLSERROR_1                               ;
                        55       0C      BC   3C 00015  1$:     MOVZWL   @TABDSC, R5                                   ; 0646
                        52               01   CE 00019          MNEGL    #1, I                                         ; 0652
                                         20   11 0001C          BRB      3$                                            ;
         51             52               06   C5 0001E  2$:     MULL3    #6, I, R1                                     ; 0649
                        51               64   C0 00022          ADDL2    (R4), R1                                      ;
                        53               61   3C 00025          MOVZWL   (R1), INDEX                                   ;
                                 10      AC   DD 00028          PUSHL    DATDSC                                        ; 0654
                        7E       04      AC   7D 0002B          MOVQ     BUFDSC, -(SP)                                 ; 0652
         50             53               04   78 0002F          ASHL     #4, INDEX, R0                                 ; 0651
                             00000000G0040   9F 00033          PUSHAB   NMLSAB PRMSEM[R0]                             ;
                  02    B1               04   FB 0003A          CALLS    #4, @2(R1)                                    ;
         DC             52               55   F2 0003E  3$:     AOBLSS   R5, I, 2$                                     ; 0646
                        50               01   D0 00042          MOVL     #1, R0                                        ; 0658
                                              04 00045          RET                                                    ; 0660

; Routine Size:  70 bytes,    Routine Base:  $CODE$ + 035D
```

```
%SBTTL 'NML$SHOWPARLIST  Show parameters from QIO buffer'
GLOBAL ROUTINE NML$SHOWPARLIST (BUFDSC, MSGSIZE, TABDSC, DATDSC, DATPTR) =

!++
! FUNCTIONAL DESCRIPTION:
!
!       This routine builds a message from the list of parameters specified.
!
! FORMAL PARAMETERS:
!
!       BUFDSC          Address of message buffer descriptor.
!       MSGSIZE         Address of longword to contain resulting message size.
!       TABDSC          Address of parameter table descriptor.
!       DATDSC          Address of data buffer descriptor.
!       DATPTR          Address of data buffer pointer.
!
! IMPLICIT INPUTS:
!
!       NONE
!
! IMPLICIT OUTPUTS:
!
!       NONE
!
! ROUTINE VALUE:
! COMPLETION CODES:
!
!       Always returns success (NML$_STS_SUC).
!
! SIDE EFFECTS:
!
!       NONE
!
!--

    BEGIN

    MAP
        TABDSC : REF DESCRIPTOR;

    LOCAL
        INDEX;

    BIND
        TABLE = TABDSC [DSC$A_POINTER] : REF BBLOCKVECTOR [, 6];

    INCR I FROM 0 TO .TABDSC [DSC$W_LENGTH] - 1 DO
        BEGIN

        INDEX = .TABLE [.I, 0,0,16,0];  ! Get table index

        (.TABLE [.I, 2,0,32,0]) (NML$AB_PRMSEM [.INDEX, 0,0,0,0],
                                 .BUFDSC,
                                 .MSGSIZE,
                                 .DATDSC,
                                 .DATPTR);

```

```
;   726            0718  2          END;
;   727            0719  2
;   728            0720  2      RETURN NML$_STS_SUC
;   729            0721  2
;   730            0722  1      END;                                    ! End of NML$SHOWPARLIST



                                                      003C 00000          .ENTRY   NML$SHOWPARLIST, Save R2,R3,R4,R5                  ; 0662
                   55       0C   AC               04   C1 00002          ADDL3    #4, TABDSC, R5                                     ; 0705
                                 54        0C     BC   3C 00007          MOVZWL   @TABDSC, R4                                        ; 0707
                                 52               01   CE 0000B          MNEGL    #1, I                                              ; 0713
                                                  21   11 0000E          BRB      2$                                                 ;
                   51            52               06   C5 00010  1$:     MULL3    #6, I, R1                                          ; 0710
                                 51               65   C0 00014          ADDL2    (R5), R1                                           ;
                                 53               61   3C 00017          MOVZWL   (R1), INDEX                                        ;
                                 7E        10     AC   7D 0001A          MOVQ     DATDSC, -(SP)                                      ; 0715
                                 7E        04     AC   7D 0001E          MOVQ     BUFDSC, -(SP)                                      ; 0713
                   50            53               04   78 00022          ASHL     #4, INDEX, R0                                      ; 0712
                                      00000000G0040   9F 00026          PUSHAB   NML$AB_PRMSEM[R0]                                  ;
                            02   B1               05   FB 0002D          CALLS    #5, @2(R1)                                         ;
                   DB            52               54   F2 00031  2$:     AOBLSS   R4, I, 1$                                          ; 0707
                                 50               01   D0 00035          MOVL     #1, R0                                             ; 0720
                                                       04 00038          RET                                                         ; 0722

; Routine Size:  57 bytes,    Routine Base:  $CODE$ + 03A3
;  732          0723  1 %SBTTL 'NML$BLDALLDES  Build parameter descriptors from record'
;  733          0724  1 GLOBAL ROUTINE NML$BLDALLDES (RECDSC, TABDSC) =
;  734          0725  1
;  735          0726  1 !++
;  736          0727  1 ! FUNCTIONAL DESCRIPTION:
;  737          0728  1 !
;  738          0729  1 !       This routine is used by SET ALL functions to build parameter
;  739          0730  1 !       descriptors from a permanent data base record.
;  740          0731  1 !
;  741          0732  1 ! FORMAL PARAMETERS:
;  742          0733  1 !
;  743          0734  1 !       RECDSC          Address of the current record descriptor.
;  744          0735  1 !       TABDSC          Address of parameter table descriptor.
;  745          0736  1 !
;  746          0737  1 ! IMPLICIT INPUTS:
;  747          0738  1 !
;  748          0739  1 !       NML$AB_PRMSEM is the parameter semantic table.
;  749          0740  1 !
;  750          0741  1 ! IMPLICIT OUTPUTS:
;  751          0742  1 !
;  752          0743  1 !       NONE
;  753          0744  1 !
;  754          0745  1 ! ROUTINE VALUE:
;  755          0746  1 ! COMPLETION CODES:
;  756          0747  1 !
;  757          0748  1 !       Always returns success (NML$_STS_SUC).
;  758          0749  1 !
;  759          0750  1 ! SIDE EFFECTS:
;  760          0751  1 !
;  761          0752  1 !       NONE
;  762          0753  1 !
;  763          0754  1 !--
;  764          0755  1
;  765          0756  2     BEGIN
;  766          0757  2
;  767          0758  2     MAP
;  768          0759  2         RECDSC : REF DESCRIPTOR,
;  769          0760  2         TABDSC : REF DESCRIPTOR;
;  770          0761  2
;  771          0762  2     LOCAL
;  772          0763  2         FLDADR,
;  773          0764  2         FLDSIZE,
;  774          0765  2         INDEX;
;  775          0766  2
;  776          0767  2     BIND
;  777          0768  2         TABLE = TABDSC [DSC$A_POINTER] : REF BLOCK;
;  778          0769  2
;  779          0770  2     NML$GW_PRMDESCNT = 0;                       ! Reset parameter descriptor count
;  780          0771  2
;  781          0772  2     INCR I FROM 0 TO .TABDSC [DSC$W_LENGTH] - 1 DO
;  782          0773  3         BEGIN
;  783          0774  3
;  784          0775  3         FLDADR = 0;
;  785          0776  3
;  786          0777  3         IF NMA$SEARCHFLD (.RECDSC,
;  787          0778  3                           .TABLE [.I,0,16,0],
;  788          0779  3                           FLDSIZE,
;  789      0780 3                              FLDADR)
;  790      0781 3          THEN
;  791      0782 4              BEGIN
;  792      0783 4
;  793      0784 4              INDEX = .TABLE [.I,16,16,0];
;  794      0785 4
;  795      0786 4              NML$SAVEPARAM (.INDEX,
;  796      0787 4                             .FLDSIZE,
;  797      0788 4                             .FLDADR);
;  798      0789 3              END;
;  799      0790 2          END;
;  800      0791 2
;  801      0792 2      RETURN NML$_STS_SUC
;  802      0793 2
;  803      0794 1      END;                                    ! End of NML$BLDALLDES



                                             003C 00000        .ENTRY  NML$BLDALLDES, Save R2,R3,R4,R5                  : 0724
                              5E               08  C2 00002        SUBL2   #8, SP
                  53      08  AC               04  C1 00005        ADDL3   #4, TABDSC, R3                                   : 0768
                                 00000000G     00  B4 0000A        CLRW    NML$GW_PRMDESCNT                                 : 0770
                              54        08     BC  3C 00010        MOVZWL  @TABDSC, R4                                      : 0772
                              52               01  CE 00014        MNEGL   #1, I                                            : 0777
                                               30  11 00017        BRB     2$                                               :
                                               6E  D4 00019 1$:    CLRL    FLDADR                                           : 0775
                                               5E  DD 0001B        PUSHL   SP                                               : 0777
                                        08     AE  9F 0001D        PUSHAB  FLDSIZE                                          :
                                        00 B342    DF 00020        PUSHAL  @0(R3)[I]                                        : 0778
                              7E               9E  3C 00024        MOVZWL  @(SP)+, -(SP)                                    :
                                        04     AC  DD 00027        PUSHL   RECDSC                                           : 0777
                     00000000G00               04  FB 0002A        CALLS   #4, NMA$SEARCHFLD                                :
                              15               50  E9 00031        BLBC    R0, 2$                                           :
                                        00 B342    DF 00034        PUSHAL  @0(R3)[I]                                        : 0784
        55        9E          10               10  EF 00038        EXTZV   #16, #16, @(SP)+, INDEX                          :
                                               6E  DD 0003D        PUSHL   FLDADR                                           : 0788
                                        08     AE  DD 0003F        PUSHL   FLDSIZE                                          : 0787
                                               55  DD 00042        PUSHL   INDEX                                            : 0786
                        FBDB  CF               03  FB 00044        CALLS   #3, NML$SAVEPARAM                                :
                  CC          52               54  F2 00049 2$:    AOBLSS  R4, I, 1$                                        : 0772
                              50               01  D0 0004D        MOVL    #1, R0                                           : 0792
                                                   04 00050        RET                                                      : 0794

; Routine Size:  81 bytes,    Routine Base:  $CODE$ + 03DC
;  805          0795  1 END
;  806          0796  1
;  807          0797  0 ELUDOM



                                                                   .EXTRN  LIB$SIGNAL

;                                          PSECT SUMMARY
;
;       Name                          Bytes                         Attributes
;
;   $CODE$                                1069  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)




;                                   Library Statistics
;
;                                                 -------- Symbols --------        Pages        Processing
;       File                                      Total     Loaded   Percent       Mapped       Time
;
;   _$255$DUA28:[NML.OBJ]NMLLIB.L32;1               341        38        11           27          00:00.1
;   _$255$DUA28:[SHRLIB]NMALIBRY.L32;1              887         3         0           47          00:00.2
;   _$255$DUA28:[SHRLIB]NET.L32;1                  1279        14         1           63          00:00.3
;   _$255$DUA28:[SYSLIB]STARLET.L32;1              9776         5         0          581          00:03.2




;                                         COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:NMLPMANIP/OBJ=OBJ$:NMLPMANIP MSRC$:NMLPMANIP/UPDATE=(ENH$:NMLPMANIP)

; Size:           1069 code + 0 data bytes
; Run Time:          00:24.0
; Elapsed Time:      01:02.4
; Lines/CPU Min:       1991
; Lexemes/CPU-Min: 12432
; Memory Used:  169 pages
; Compilation Complete
```

0285 AH-BT13A-SE
VAX/VMS V4.0

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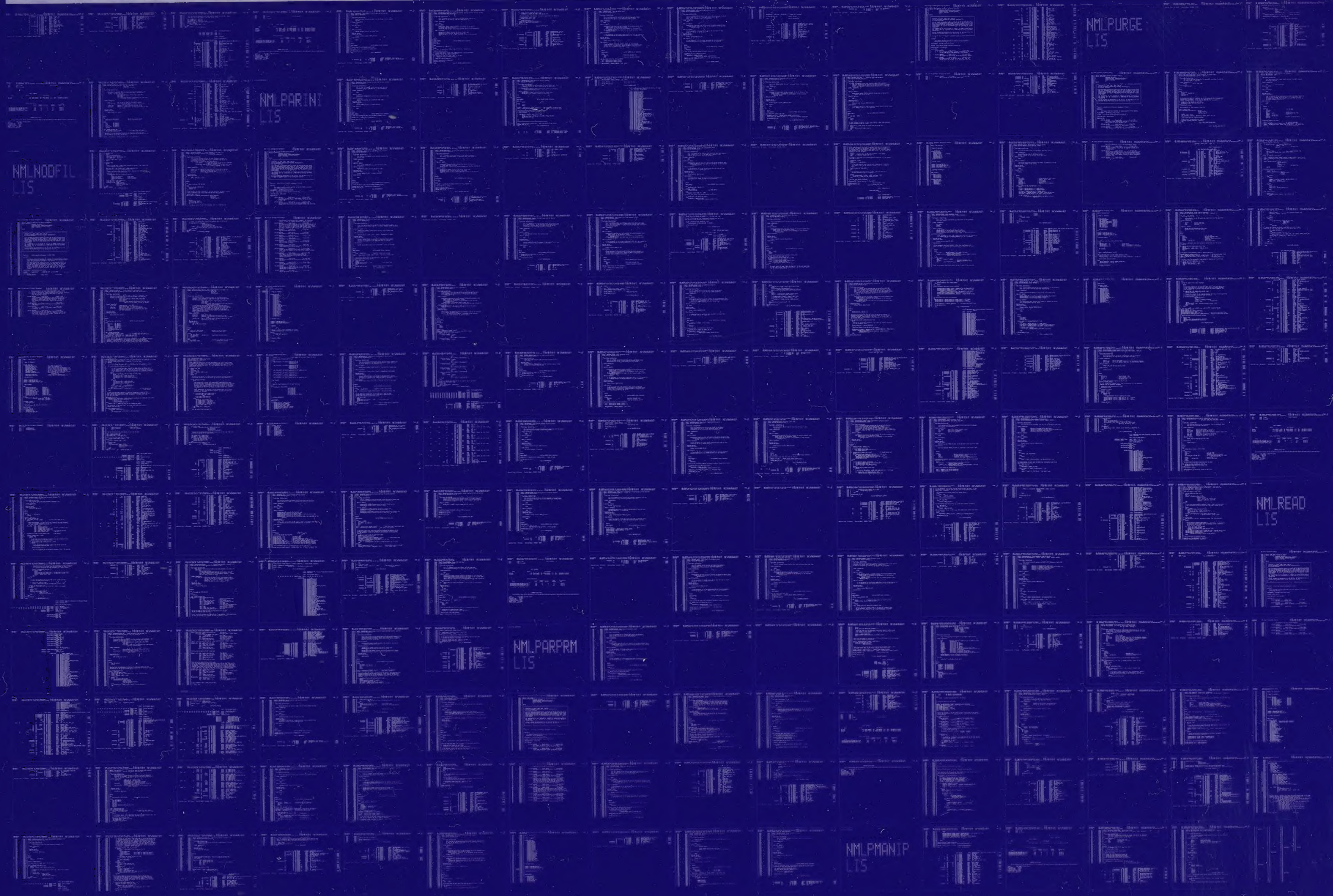

NMLPURGE
LIS

NMLPARINI
LIS

NMLNODFIL
LIS

NMLREAD
LIS

NMLPARPRM
LIS

NMLPMANIP
LIS